

Translation

PATENT COOPERATION TREATY

PCT/IB2003/004653



# PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference I6WO	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/IB2003/004653	International filing date (day/month/year) 22 October 2003 (22.10.2003)	Priority date (day/month/year) 20 November 2002 (20.11.2002)
International Patent Classification (IPC) or national classification and IPC G01F 15/04, A61B 5/08		
Applicant IMT MEDICAL AG		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 03 June 2004 (03.06.2004)	Date of completion of this report 28 December 2004 (28.12.2004)
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# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IB2003/004653

## I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

☐ the international application as originally filed.

☒ the description, pages 1-5, as originally filed,  
pages \_\_\_\_\_, filed with the demand,  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_,  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

☒ the claims, Nos. \_\_\_\_\_, as originally filed,  
Nos. \_\_\_\_\_, as amended under Article 19,  
Nos. \_\_\_\_\_, filed with the demand,  
Nos. 1-7, filed with the letter of 06 December 2004 (06.12.2004),  
Nos. \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

☒ the drawings, sheets/fig 1/3-3/3, as originally filed,  
sheets/fig \_\_\_\_\_, filed with the demand,  
sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_,  
sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

2. The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/fig \_\_\_\_\_

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

**I. Basis of the report**

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

Reference is made to the following documents:

- D1: US-B1-6 468 222 (BARBER THEODORE W ET AL) 22 October 2002 (2002-10-22)
- D2: US-A-5 179 958 (MAULT JAMES R) 19 January 1993 (1993-01-19)
- D3: US-B1-6 368 287 (HADAS NOAM) 9 April 2002 (2002-04-09)
- D4: US-A-6 090 049 (CHA EUN JONG) 18 July 2000 (2000-07-18)
- D5: WO 01/47417 A (CORTEX BIOPHYSIK GMBH; HENKER RALF (DE); GEHRKE MATTIAS (DE); KRETSCHMER CLAUS-PETER (DE)) 5 July 2001 (2001-07-05)

1. The amendments submitted with the letter of 6 December 2004 introduce substantive matter that, contrary to PCT Article 34(2)(b), goes beyond the disclosure in the international application as filed. The amendments are the following underlined features of claim 1:

"such that a consolidated (condensed) measured value can be provided from the individual measured values". These features cannot be derived directly and unequivocally from the description.

2. The present report has been established without taking the above amendments into account, since, for the reasons given, they go beyond the original disclosure in the international application as filed (PCT Rule 70.2(c)).

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims		YES
	Claims	1-7	NO
Inventive step (IS)	Claims		YES
	Claims	1-7	NO
Industrial applicability (IA)	Claims	1-7	YES
	Claims		NO

**2. Citations and explanations****1. Major Instances of Lack of Clarity**

1.1. The claims and the description are at times so unclear that it is very difficult, nearly impossible, to examine the claims with respect to novelty or inventive step. It also appears that a number of the points of unclarity (vague terminology, relative arrangement of the components, subject matter defined by the result to be achieved) cannot be remedied, since a more precise definition of the features in question cannot be found in the description.

1.2. For example, claim 1 does not satisfy the requirements of PCT Article 6 with respect to clarity for the following reasons:

1.3. Claim 1 does not satisfy the requirements of PCT Article 6 because the subject matter for which protection is sought is not clearly defined. The claim attempts to define the subject matter in terms of the result to be achieved:

- "(...) installed such that *both moist and dry gases can be measured*";

- "(...) are compared *such that a consolidated measured value can be provided from the individual measured values*".

In so doing, however, this claim merely states the problem to be solved without providing the technical features necessary to achieve said result.

- 1.4. As is explained below, a number of the features in device claim 1 relate to a method for using the device and not to the definition of the device on the basis of its technical features:

"a computer *being provided*, and in its operating state the individual measured values of the individual sensors *being compared* with each other by the computer (...)" . Therefore, contrary to the requirements of PCT Article 6, the intended restrictions do not emerge clearly from the claim.

- 1.5. Moreover, it is not clear from the wording of claim 1 how the measured values are supposed to be compared:

- Are "the individual measured values" from an "individual sensor" compared with each other (independently of the other sensors)?
- Are "the individual measured values" from one "individual sensor" compared with the "individual measured values" from another (or several other?) "individual sensor"?
- How are the measured values from an oxygen concentration sensor, for example, compared with the measured values from, for example, a moisture sensor? Is a calibration involved? A correction with respect to the environmental conditions?

No explanation of the claimed measurement process can be found in the description of the present invention.

- 1.6. A person skilled in the art does not know what the expression "consolidated measured value" means in claim 1.

No explanation of this expression can be found in the description of the present invention.

- 1.7. Claim 1 claims "a sensor resistor" that can also be understood to be an electric sensor resistor, which would contradict the description. The arrangement of the sensor resistor and the gas channel relative to each other is unclear, and thus so is the scope of the claim.

2. **Novelty of the Claims (PCT Article 33(2))**

- 2.1. The present application does not satisfy the requirements of PCT Article 33(1) because the subject matter of claims 1-7, insofar as it can be understood (see point 1, above), is not novel within the meaning of PCT Article 33(2).

2.2. **Independent Claim 1**

- 2.2.1. Document D1 is considered the prior art closest to the subject matter of claim 1. Document D1 discloses (see figures 1-4 and 20 and the corresponding passages in the text) a

"device (10) for measuring gas flows (cf. column 32, lines 40-48) with a gas channel (see figure 4 or 20), with a sensor resistor arranged therein (cf. column 31, lines 24-35) and with sensors in

the gas channel (cf. column 8, lines 19-32 or column 12, lines 22-26), said gas channel being configured as a compact block

[The expression "compact block" is vague and unclear and leaves the reader uncertain as to the technical feature in question. Consequently, the definition of the subject matter of this claim is not clear (PCT Article 6). Moreover, the device disclosed in D1 is also constructed "compact" (see figure 1).],

and a group of various sensors (e.g. 80, 82, 84, 90, 94) (cf. also column 12, lines 15-44) with various measured values or measurement ranges (cf. column 8, lines 19-32 or column 12, lines 22-26) is tubelessly integrated directly into the gas channel

[The document discloses (see figures 3-4 or 20) various sensors (e.g. 80, 82, 84, 90, 94) that are integrated into the gas channel without tubes.]

and installed such that both moist and dry gases can be measured (cf. column 9, lines 20-40 and column 17, line 51 to column 20, line 63), a computer (96) (cf. also column 8, lines 62-65) being provided, and in its operating state the individual measured values of the individual sensors being compared with each other by the computer so that a consolidated measured value can be provided from the individual measured values (cf. column 8, line 38 to column 9, line 17; column 12, lines 22-44; column 17, line 31 to column 20, line 63)".

2.2.2. Therefore, the subject matter of claim 1 is not novel.

**2.3. Dependent Claims 2-7**

Dependent claims 2-7 do not contain any features that, in combination with the features of any claim to which they refer back, meet the PCT requirements for novelty because the additional features of said claims are present in document D1:

- Claim 2: cf. column 12, lines 15-44;
- Claim 3: cf. column 31, lines 24-35;
- Claim 4: see figures 2-4;
- Claim 5: cf. column 17, line 51 to column 23, line 8;
- Claims 6-7: see figure 1 and column 3, line 63 to column 4, line 5.